Data Dictionary for Emerald Ash Borer Biocontrol Study (Duan et al. 2015 Journal of Applied Ecology):

**Sampling Year:** Year of sampling in the falls of 2008, 2009, 2010, 2011, 2012, 2013, and 2014

**Location or Site ID**: **LP** (=Legg Park, LPA for release or LPB for control); **BF** (=Birchfield Park, BFA for release or BFB for control), **MERID** = including Central park (CP) for release and Nancy Moor Park (NM) for control

**Tree ID**: Specific site ID plus series numbers of 901….910; e.g., LPA901,LPB901; BFA901, BFB901 etc)

**GPS Coordinate**s for each tree: Add two columns to capture GPS coordinates: GPS N/ GPS W.

**TRT ID**: Treatments: RLS (=release), Ctrl (Control)

**DBH (cm)**: Diameter at the breast height in centimeter

**Cohort ID**: CG = caged cohort; Wild = naturally occurring cohorts;

**Debark position m**> ground: numbers

**EAB stages**: Always entered as **L1, L2, L3, L4, JL, PP, or A. ‘**None’ is entered if no insects are found. Sometimes other insects other than EAB are also entered. Note for life table analysis, EAB stage (**EAB Stage RCL1-L4 2**) was re-coded as L1-L2, L3-L4 and JL (including pp) and A for life table analyses.

**Counts**: always numbers.

**Fate of Cohorts**: Always entered as: **AL** = alive) **D** = died; **Di** =diseased; **WP** = woodpecker predation; **WP-OLD** = old woodpecker predation – gallery edge showing plant callus. **EX** = adult exit hole; EX-OLD = old exit holes – gallery edge showing plant callus; **Prd** predation by other predators; **Pars** (=parasitized), or **NA** (=not applicable when no insects are found in the previous column ‘counts’). Notes for life table analysis, the following columns are:

**Sum(EX)** = sum of EAB adult exit holes

**Sum(AL)** = sum of alive EAB stages observed

**Sum(PARS)** = sum of EAB larvae parasitized by all parasitoids observed

**Sum (D-Di)** = sum of dead and diseased EAB stages observed

**Sum(WP-PRD)** = sum of EAB stages removed by woodpeckers and other avian predators

**Parasitoid species**: Atany = (Atanycolus sp); Tet (=Testrastichus planienisi); Spat (=Spathius spp); Unk (=unknown species), BI (= Balcha indica); Phasg (= Phasgonophorus sulcata); or others.

**Parasitoid stage**: Depending on species, they may be entered as: in-host, lv (=larvae), cocoon, p (=pupa), A (=adult), ex (=exit). Sometimes, cocoon may contain lv, p, or exit. Sometimes, cocoon may contain the larva, pupa, adult, or exit, and thus entered as ‘cocoon-lv’, ‘cocoon-p’, ‘cocoon-a’, or ‘cocoon-ex’.

**Parasitoid count**: always numbers.

**Sampling dates:** date/month/year.

**Additional notes for life table analysis:** for more detailed explanation on life table parameter calculations (lx, dx, qx and R0), please see the detailed description in the article. Briefly:

lx = number EAB entering each stage

dx = number of EAB dead due to specific mortality factor

qx = mortality rate due to each specific mortality factor

Because not all EAB larvae advanced to mature stages at the time of samplings, thus **adjusted lx** and **adjusted dx** by excluding small (L1-L2) EAB larvae were used for calculation of R0.

**Egg mortality**: EAB egg mortality rate estimated based on observations of parasitism in a previous study.

**Overwintering WP mortality**: mortality rate caused by woodpeckers and estimated based on a previous study in the same study sites.

**Adult mortality**: EAB adult mortality rate assumed based on other publications.

**Adult sex ratio**: a 1:1 EAB sex ratio (i.e., 0.5 female rate) was assumed for the life table analysis.

**l0-Egg: number of EAB eggs estimated based on egg mortality rate (0.3) and number of all advanced immature EAB stages observed**

**lx-adult: number of EAB adults produced in the generation**

**Parasitoid Effect:** PARS-ALL = all observed parasitism was included in the life table; None-PARS = all parasitism was removed from the life table; No Tet = only Tetrastichus planipennisi was removed from the life table.

N Rows: Number of the rows in the original dataset; no relevance for life table analysis.

Sum(Sum(PARS)) = Sum(PARS): sum of EAB larvae parasitized by all parasitoids observed

Sum(Tet-Total): Sum of the EAB larvae parasitized by Tetrastichus planipennisi

R0: Net population growth rate = the ratio number of the individuals (eggs) started at the new generation relative to the number of the individuals (eggs) started at the previous generation.